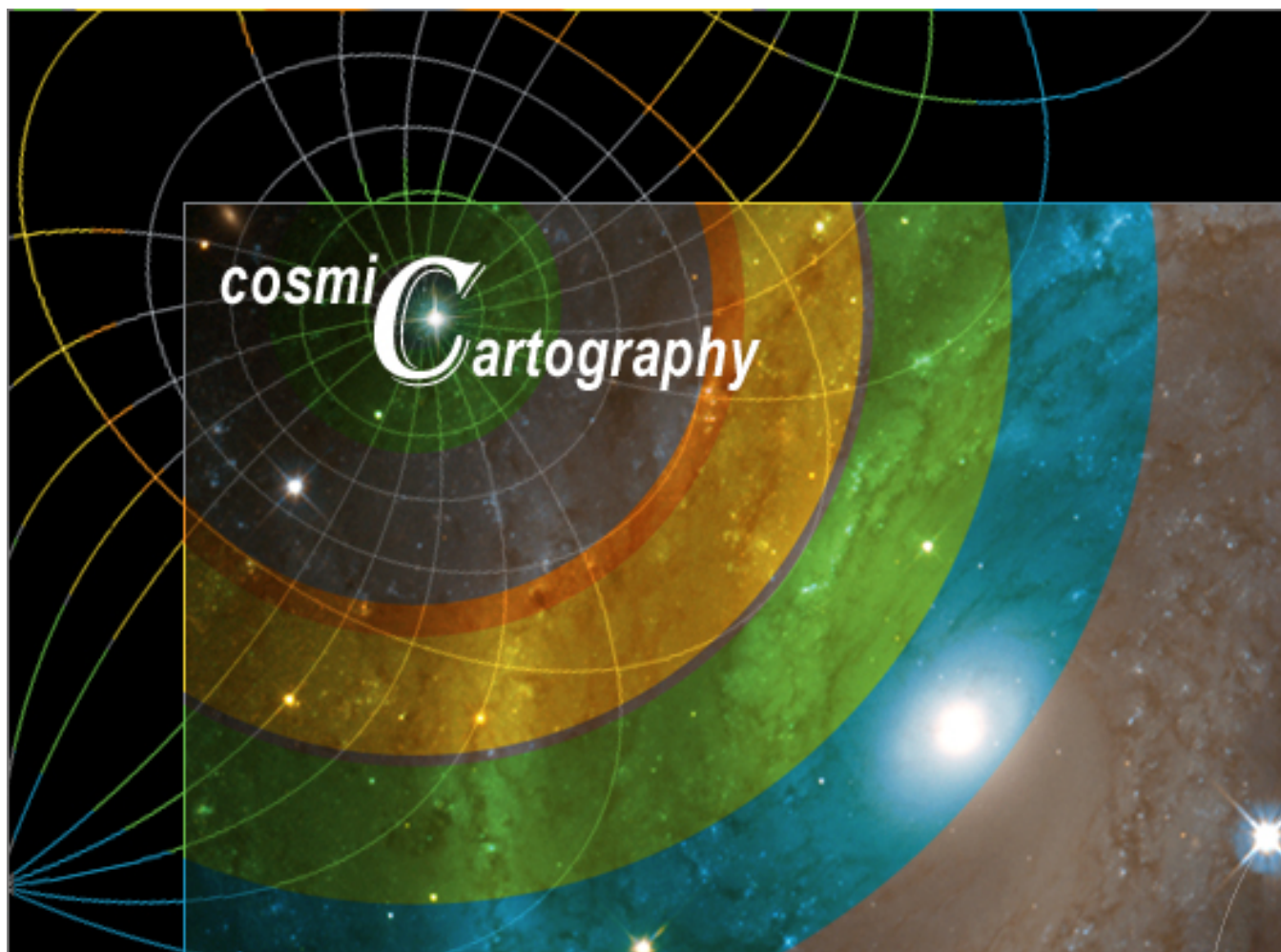


# Cosmic Cartography: Mapping the Universe from the Big Bang to the Present

December 3 - 6, 2007

Chicago, IL

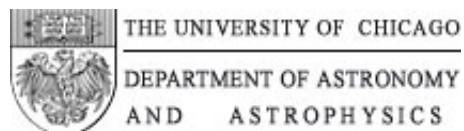


<http://cosmicmaps.uchicago.edu/>

## CONFERENCE PROGRAM



<http://kicp.uchicago.edu/>



<http://astro.uchicago.edu/>



FESTIVAL OF MAPS

<http://www.festivalofmaps.com/>

**December 3, 2007 Mapping the Largest Structures**

08:00 - 08:40	<i>Coffee and Pastries</i>	
08:40 - 08:50	<i>Welcome and Announcements</i>	
08:50 - 09:30	Mapping the CMB with the Wilkinson Microwave Anisotropy Probe (invited talk)	G. Hinshaw
09:30 - 10:10	On standard rods when making maps (invited talk)	R. Sheth
10:10 - 10:15	<i>Poster Highlights I-A</i>	
10:15 - 10:50	<i>Coffee and Posters</i>	
10:50 - 11:30	CMB and Galaxy Survey Cross-Correlation (invited talk)	R. Scranton
11:30 - 11:50	CMB Polarization Measurements with QUaD	C. Pryke
11:50 - 12:10	CMB Polarization Systematics Due to Beam Asymmetry: Impact on Inflationary Science	M. Shimon
12:10 - 12:30	Genus Topology of the Large Scale Structure	D. Hambrick
12:30 - 14:00	<i>Lunch</i>	
14:00 - 14:40	Mapping Dark Matter in 3d with Gravitational Lensing (invited talk)	G. Bernstein
14:40 - 15:00	Measuring the Cosmic Shear in Fourier Space	J. Zhang
15:00 - 15:20	Anisotropic Magnification Distortion of the Galaxy Correlation Function	L. Hui
15:20 - 15:40	Mapping dark matter with cosmic magnification	P. Zhang
15:40 - 15:45	<i>Poster Highlights I-B</i>	
15:45 - 16:30	<i>Coffee and Posters</i>	
16:30 - 17:10	The Gaseous Cosmic Web - from the Intergalactic Medium to Galaxies, and Back (invited talk)	M. Rauch
17:10 - 17:30	Percolation and the Large Scale Structure of the Universe	S. Habib
17:30 - 17:50	Reliability of N-body Simulations at the Subpercent Level	T. Nishimichi

**POSTERS**

Degree-scale anomalies in the CMB: localizing the first peak dip to a small patch of the north ecliptic sky (Poster I-A) F. Ferrer

Utilizing combined CMB T and E-polarization data to constrain primordial non-Gaussianity (Poster I-A) A. Yadav

Cosmic Calibration (Poster I-B) K. Heitmann

Clustering of X-ray selected AGNs in the Chandra Lockman Hole NW region (Poster I-B) Y. Yang

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**December 4, 2007 Mapping Local Structures**

08:00 - 08:45	<i>Coffee and Pastries</i>	
08:45 - 08:50	<i>Announcements</i>	
08:50 - 09:30	Seeing the Forest Through the Trees: Cosmic Backgrounds (invited talk)	E. Wright
09:30 - 10:10	The Observed Structure of the Milky Way Spheroid (invited talk)	H. Newberg
10:10 - 10:15	<i>Poster Highlights I-C</i>	
10:15 - 10:50	<i>Coffee and Posters</i>	
10:50 - 11:30	Mapping the Local Group (invited talk)	K. Johnston
11:30 - 11:50	Peculiar Velocities in the Local Supercluster	B. Tully
11:50 - 12:10	Bayesian Reconstruction of the Large-Scale Structure: Joint Density, Velocity and Power-Spectrum Reconstruction	F. Kitaura
12:10 - 12:30	Evidence of dark matter substructure in tidal debris	J. Siegal-Gaskins
12:30 - 14:00	<i>Lunch</i>	
14:00 - 14:40	Mapping the Gaseous Local Universe (invited talk)	M. Putman
14:40 - 15:00	Probing Dark Matter Substructure with Pulsar Timing	J. Fry
15:00 - 15:20	Cold Dark Matter Substructure and Galactic Disks: Morphological and Dynamical Signatures of Hierarchical Satellite Accretion	S. Kazantzidis
15:20 - 15:40	The Morphology of Shell-type Supernova Remnants in Very-High-Energy Gamma Rays	S. Wissel
15:40 - 15:45	<i>Poster Highlights I-D</i>	
15:45 - 16:30	<i>Coffee and Posters</i>	
16:30 - 17:10	A High-Energy View of the Nearby Universe (invited talk)	A. Harding
17:10 - 17:30	The Excited State of Galactic TeV Astronomy	B. Humensky
19:00 - 21:00	<i>Banquet at Spiaggia, including the lecture "Ptolemy the Geographer" by Jim James R. Akerman (Director, The Hermon Dunlap Smith Center for the History of Cartography, The Newberry Library)</i>	

## **POSTERS**

The impact of non-linear matter power spectrum on the measurement of neutrino masses (Poster I-C)	S. Saito
Peaks in cosmological density field (Poster I-D)	S. De
Cosmology through galaxy cluster statistics (Poster I-D)	D. Raut
The VERITAS Survey of the Galactic Plane (Poster I-D)	S. Wissel

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**December 5, 2007 Mapping the Largest Sources**

08:00 - 08:45	<i>Coffee and Pastries</i>	
08:45 - 08:50	<i>Announcements</i>	
08:50 - 09:30	Observing the Sunyaev-Zeldovich Effect (invited talk)	M. Dobbs
09:30 - 10:10	Tracing the Thermal and Metal Content in Clusters and the Effects of AGN Outbursts on the Hot Gas (invited talk)	C. Jones
10:10 - 10:15	<i>Poster Highlights II-A</i>	
10:15 - 10:50	<i>Coffee and Posters</i>	
10:50 - 11:10	Radio Sources Toward Galaxy Clusters at 30 GHz	K. Coble
11:10 - 11:30	Studying scaling relation and their scatter with 10000+1 galaxy clusters	E. Rasia
11:30 - 11:50	Ensuring the Robustness of Dark Energy Constraints in Light of Galaxy Formation	A. Zentner
11:50 - 12:30	X-ray Cluster Studies (invited talk)	A. Vikhlinin
12:30 - 14:00	<i>Lunch</i>	
14:00 - 14:40	Optical/IR Surveys for High-Redshift Galaxy Clusters (invited talk)	H. Yee
14:40 - 15:00	Mapping the destruction of cluster cool cores during mergers	M. Markevitch
15:00 - 15:20	Statistics of the Largest Structures from MaxBCG Galaxy Clusters	B. Koester
15:20 - 15:40	Constraining Dark Energy by Combining Cluster Counts and Shear-Shear Correlations in a Weak Lensing Survey	W. Fang
15:40 - 15:45	<i>Poster Highlights II-B</i>	
15:45 - 16:30	<i>Coffee and Posters</i>	
16:30 - 16:55	Covariance in Galaxy Cluster Scaling Relations	A. Evrard
16:55 - 17:20	Minimally Invasive CMB Mapmaking	G. Holder
17:20 - 17:45	New Information From New Maps	A. Stebbins
19:00 - 21:00	<i>Public Event, "Cosmic Cartography Journey through the Universe" at the Art Institute's Rubloff Auditorium, host by Rocky Kolb and Mike Turner</i>	

**POSTERS**

Observing the Distant Universe with Gravitational Lensing (Poster II-A)	M. Bayliss
Probing non-thermal emission from clusters with angular fluctuations in the gamma-ray background (Poster II-A)	S. Koushiappas
Radio Sources in Galaxy Clusters (Poster II-A)	M. Roscioli
Using Galaxies as Cosmic Tracers (Poster II-A)	M. Swanson
An Evolving Entropy Floor in the Intracluster Gas? (Poster II-B)	W. Fang
Quasars and Galaxies in Large Quasar Groups at $z \sim 1$ (Poster II-B)	L. Habertzettl
Selection and Covariance in Galaxy Cluster Scaling Relations: Deciphering Mixed Messages from X-ray Selected Clusters (Poster II-B)	B. Nord
The Effect of Baryonic Physics on the Halo Mass Function (Poster II-B)	R. Stanek

**December 6, 2007 Mapping the Future**

08:00 - 08:55	<i>Coffee and Pastries</i>	
08:55 - 09:00	<i>Announcements</i>	
09:00 - 09:25	Planck	K. Gorski
09:25 - 09:50	The Radio Synoptic Survey Telescope (RSST): A SKA Concept	S. Myers
09:50 - 10:15	Mapping Star and Galaxy Formation with ALMA	A. Baker
10:15 - 10:20	<i>Poster Highlights II-C</i>	
10:20 - 11:00	<i>Coffee and Posters</i>	
11:00 - 11:25	Standard sirens: Precision distance measurements using gravitational waves	S. Hughes
11:25 - 11:50	Mapping the TeV Gamma-Ray Sky with HAWC	J. Pretz
11:50 - 12:15	Mapping the Ultra-high-energy Cosmic-ray Sky with the Pierre Auger Observatory	V. Pavlidou
12:15 - 13:45	<i>Lunch</i>	
13:45 - 14:10	The Dark Energy Survey	T. McKay
14:10 - 14:35	Mapping the universe with Pan-STARRS PS1 System	K. Chambers
14:35 - 15:00	The Wide-field Infrared Explorer (WISE)	E. Wright
15:00 - 15:15	NIRSS - the Near Infrared Sky Surveyor	D. Stern
15:15 - 15:30	NuSTAR: the Nuclear Spectroscopic Telescope Array	D. Stern
15:30 - 15:55	BOSS : The Baryon Oscillation Spectroscopic Survey	N. Padmanabhan
15:55 - 16:00	<i>Poster Highlights II-D</i>	
16:00 - 16:35	<i>Coffee and Posters</i>	
16:35 - 16:50	<i>Conference Closing</i>	



**POSTERS**

Perturbation theory and excursion set estimates of the probability distribution function of dark matter, and a method for reconstructing the initial fluctuation field (Poster II-C)	T. Lam
The Study of Extragalactic Gamma-ray Sources: An Ongoing Revolution (Poster II-C)	L. Reyes
Photometric redshift surveys: towards unbiased scaling relations (Poster II-C)	G. Rossi
Robust Machine Learning Applied to Terascale Astronomical Datasets (Poster II-D)	N. Ball
Dark Energy Survey (Poster II-D)	J. Estrada
Group finding in high-dimensional data-sets: Method and application to the identification of substructures in the stellar halo (Poster II-D)	S. Sharma